
From: Eilers, Christopher J [/O=UNC EXCHANGE/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CEILERS]
Sent: 11/1/2013 6:03:07 PM
To: Williford, Lynn E [lynn_williford@unc.edu]
Subject: FW: Data Needs

Lynn,

One of the things Abigail asked for as part of her grant data request was for data to track STEM graduates after graduation. The only data we have to offer is National Student Clearinghouse data and also an extract from our own student system looking for graduate program enrollees/graduates. That said, I can only find hits on about 12% (about 400 out of the 3,271 students) of the STEM graduates that she is looking at so I don't have too much data to work with if I try to do any sort of summarizing by sex and race/ethnicity. I think I'm going to run into problems where many of the cells may be 5 or less students and need to be blanked out. So, I was wondering what your thoughts were regarding giving her the raw data for just that part of the request? I would remove the PID and name but leave sex and race/ethnicity so she could do her summarizing? Let me know your thoughts.

Abigail also said she was going to talk to you about the student lookups that she mentioned in a previous note. Not sure if she has contacted you yet.

Thanks,

Chris

From: Eilers, Christopher J
Sent: Thursday, October 31, 2013 4:48 PM
To: Panter, A. T.
Subject: RE: Data Needs

Abigail,

I've attached a file for the Table 1 part of your request. I think the way the programmer laid out the data should give you all of the pieces that you need but let me know if you have questions. The report has three tabs. The first shows Fall 2009-Fall 2013 UGRD applied/admit/enrolled headcounts broken by new first-year vs. new transfer student. The second shows the mean HS GPA for students that reported one. The third tab shows the mean SAT and ACT test scores for students that reported them. Cases where I blanked out the avg. GPA or test scores due to small cell sizes are highlighted in purple. The terms provided don't quite match the years in your email but I think I remember we wanted the most recent 5 years, right? If not let me know.

I've been working on more of the pieces today but hit a couple snags that are causing it to take a little longer than I thought. Hope to give you much more of the data tomorrow.

EXHIBIT I

UNC0326431

I also just got some raw data for the Table 5 part of your request but I need to sort through it, join the clearing house data to it, and then try to make sense of what's there. I honestly think it would be better if I just give you the raw data rather than try to summarize it but I need to see if Lynn is okay with it because of the sex and race/ethnicity detail that would be included. I'll let you know.

Thanks,
Chris

p.s. Happy Halloween.

From: Panter, A. T.
Sent: Wednesday, October 30, 2013 10:23 PM
To: Eilers, Christopher J; Panter, A. T.
Subject: Re: Data Needs

Dear Chris,

Thank you so, so much for helping me with these data requests and for your wonderful update. I am thrilled with the idea that the data are coming. I apologize for all of the extra work that the project has entailed. I value so much your decision making for these tables and the care you have shown this whole time.

Just a few comments.

Table 3 — I think that is great. I will LOVE to have actual majors and intended majors. These will be important comparison groups later — so important. I think you are exactly right with the specs you describe for this.

Thanks for the reminders about the 5 or less blanks and for the lists. I don't want to have people in your office have to do all of our work finding people. But I think we need to look for their web presence in some way. I will definitely speak to Lynn about appropriate ways to proceed. Maybe there is a way that one of my RAs can come to the office and sit at a computer to do searches. Or maybe there is another way that will take the burden off of your office but still respect the important security issues inherent in these student data. One of our PIs (Mark Peifer) wants to do searches himself just to try it. (Biologist turn social scientist!)

I appreciate everything that you are doing. Thank you for spending so much time with our data requests.

All best,

Abigail

A. T. Panter
panter@unc.edu

From: <Eilers>, Christopher J <chris_eilers@unc.edu>
Date: Wednesday, October 30, 2013 at 5:47 PM
To: "A. Panter" <panter@ad.unc.edu>
Subject: RE: Data Needs

Abigail,

We've been working on your requests today and wanted to let you know where we stand so far on the remaining items:

Table 1: Another programmer is finishing the data for this table and I should be able to send it all to you tomorrow.

Table 3: I'm working on this data as we speak and should have some tables for you tomorrow. For these I'm taking the approach of looking for UGRD students in each fall term that are enrolled with a primary or second major that is associated with the four identified STEM depts. (BIOL,CHEM,PHYS, and MATH). I hope I haven't oversimplified this. My output tables will break the counts to show the difference between 'declared' majors (officially in a major) vs. 'intended' majors (general college students that are not yet formally in a major). If a student has a primary and a second major in the STEM depts. then I will report them in the dept. of their primary major. Let me know if I need to re-think any of this.

Table 4: I'll be working on this after I finish the Table 3 analysis. Hopefully I can get that done tomorrow or no later than Friday.

Table 5: Another programmer is working on getting me the raw data for this. We already have the National Student Clearinghouse extract and I've asked him to also search our own student records system(s) as well. Not sure exactly sure yet how to format this data for you. I'm hoping to have the raw data compiled by tomorrow afternoon so we can summarize it and provide it on Friday.

Table 6: Since I ran the other data for this I should be able to get you the section/instructor counts pretty easily. I'll try to do that tonight.

There were a couple things that I needed to run by you:

1. I want to let you know that for any mean HS GPA, mean Entrance Exam Scores, or college GPA statistics, if the value in a table cell is represented by 5 or less students I will be blanking that out to comply with our protocol for keeping data non-identifiable.

2. You had asked for a list of student names and race/ethnicity related to Table 4 and I wanted to mention that I asked Lynn about this and she said that we need to be very careful to adhere very closely to University Counsel's advice about releasing individual data that identifies race or other sensitive information. She asked if you could elaborate more about what you are trying to find out, and then she would have someone in the office look up web info. for you. It may be easier if you talk with Lynn directly on this point, or I can relay the info. Either way is okay with me. Sorry for the holdup but we just need to make sure we're staying in compliance with the various rules and regulations.

Let me know if you have any questions, and again sorry for the delay and thanks for your incredible patience with me.

Chris

From: Panter, A. T.
Sent: Tuesday, October 29, 2013 10:07 PM
To: Eilers, Christopher J; Panter, A. T.
Subject: Re: Data Needs

Hi Chris,

I hope you are doing great and enjoying this fall weather!

We're getting down to the deadline for the new proposal submission, so I wanted to let you know what we still need. I am sorry to have to ask for all of these requests!!

I will have to re-format the tables etc for the proposal so it will really help to have them tables so I can get them done in time!

I so greatly appreciate your help. If you have questions, please call me at 919 656 5657 (or email).

Thanks so much!!

Abigail

We need Table 1. As a followup, you asked: ??? For the "Table 1" you've asked for average HS GPA and SAT/ACT scores. Are those to be based on the applied, admit, or enrolled cohort? — I think it makes sense to have HS GPA and SAT/ACT for enrolled students.

Table 1. For the university as a whole, admissions statistics for each of the last 5 years (i.e., fall 2007, 2008, 2009, 2010, and 2011):

Application numbers, overall and disaggregated by gender and ethnicity/race

Cumulative high school GPAs, overall, and disaggregated by gender and ethnicity/race
SAT/ACT scores, overall, and disaggregated by gender and ethnicity/race
Offers of admission , overall, and disaggregated by gender and ethnicity/race
Enrollment numbers, overall, and disaggregated by gender and ethnicity/race

I have Table 2 (thanks for telling me where to go).

Table 2. For the university as a whole, graduation statistics for each of the last 5 years (i.e., spring 2008, 2009, 2010, 2011, and 2012):

4-year graduation statistics, overall, and disaggregated by gender and ethnicity/race
5-year graduation statistics, overall, and disaggregated by gender and ethnicity/race

We need Table 3. Do we have the data for the time when people declare their majors? These would be our “science interested” students.

Table 3. For each participating STEM department, --[BIO, CHEM, PHYSICS, MATH] pipeline statistics for declared majors for each of the last 5 years (i.e., fall 2007, 2008, 2009, 2010, 2011):

Number of students, overall and disaggregated by gender and ethnicity/race
Cumulative high school GPAs, overall and disaggregated by gender and ethnicity/race
SAT/ACT scores, overall and disaggregated by gender and ethnicity/race

We have the number of graduates for Table 4, but not the other info about their GPAs, scores, college GPA, years to graduation. We would also like (in some file) a listing of the names of URM students (African American, Native/American Indian, Hispanic/Latino) graduates. We would not contact them. We want to look them up on the web.

Table 4. For each participating STEM department, pipeline statistics for baccalaureate recipients for each of the last 5 years (i.e., spring 2008, 2009, 2010, 2011, 2012):

Number of students, overall and disaggregated by gender and ethnicity/race
Cumulative high school GPAs, overall and disaggregated by gender and ethnicity/race
SAT/ACT scores, overall and disaggregated by gender and ethnicity/race
Cumulative college GPA, overall and disaggregated by gender and ethnicity/race
Number of years to graduation, overall and disaggregated by gender and ethnicity/race

We need Table 5.

Table 5. For each participating STEM department, post-graduation outcomes for baccalaureate recipients for each of the last 5 years (i.e., spring 2008, 2009, 2010, 2011, 2012), specifically the number of students:

In a STEM PhD program, overall and disaggregated by gender and ethnicity/race

In a STEM Master's program, overall and disaggregated by gender and ethnicity/race

In a clinician-scientist program (MD-PHD, DVM-PHD, etc), overall and disaggregated by gender and ethnicity/race

In a clinical training program (M.D., DVM, etc.), overall and disaggregated by gender and ethnicity/race

Employed in a STEM field, overall and disaggregated by gender and ethnicity/race

Not in STEM, overall and disaggregated by gender and ethnicity/race

Unknown, overall and disaggregated by gender and ethnicity/race

We have Table 6. Thanks for that!

BUT we don't have the Number of Faculty who Mentored Undergraduate students during the AY and/or summer

Table 6. For each participating STEM department, independent research experiences for each of the last five academic years (2007-08, 2008-09, 2009-10, 2010-11, 2011-12), specifically:

Number of students who had independent research experiences during a given academic year, overall, and disaggregated by gender and ethnicity/race

Number of students who had independent research experiences during the summer only, overall and disaggregated by gender and ethnicity/race

Number of students who had independent research experiences both during the academic year and summer, overall and disaggregated by gender and ethnicity/race

Number of faculty who mentored undergraduate students during the academic year and/or summer

A. T. Panter

panter@unc.edu

A. T. Panter

panter@unc.edu

From: <Eilers>, Christopher J <chris_eilers@unc.edu>

Date: Thursday, October 17, 2013 at 4:57 PM

To: "A. Panter" <panter@ad.unc.edu>

Subject: FW: Data Needs

Abigail,

Here's a revised version of the file for "Table 6". This one includes the Math courses that Ben Haven mentioned.

I also wanted to make sure that I mention that this report is just based on students that were enrolled in the specific courses. It was not based on students that had graduated with STEM degrees and that had also taken one or more of the research courses. I hope that makes sense, and was also the correct logic.

Chris

From: Eilers, Christopher J
Sent: Thursday, October 17, 2013 4:01 PM
To: Panter, A. T.
Subject: FW: Data Needs

Abigail,

Here is what Ben provided. I'll assume you want me to include all of these courses and I will also check for any of these that may also have an equivalent entry with an 'H' suffix code. Just let me know if I'm heading in the wrong direction.

Thanks,
Chris

From: Haven, Ben
Sent: Thursday, October 17, 2013 1:05 PM
To: Eilers, Christopher J
Subject: RE: Data Needs

Hello Chris,

There are a few courses which would probably qualify as independent research/study:

- MATH 296/396 (course ID 001621)— MATH 296 has historically been treated as a mentored reading and research course, and is intended mainly for students working on honors projects. During our independent study renumbering project last year, this course was renumbered to MATH 396. This new number went into effect in fall 2013.
- MATH 290 (course ID 024873) — this course, while numbered as a topics course, is usually treated as an independent study/research lab, attached to another course. Course description: Experimentation or deeper investigation under the supervision of a faculty member of topics in mathematics that may be, but need not be, connected with an existing course.
- MATH 699/690 (course ID 087392) — MATH 699 has been treated as a directed study course of an advanced topic in mathematics. This course was renumbered to MATH 690 during the independent study renumbering project last year, new number effective fall 2013.

There are no specific senior honors thesis courses at the 600 level, nor are there any *95 research courses in the Department of Mathematics. Please let us know if you have any additional questions.

Best regards,

Ben

--

Benjamin Haven

Curriculum Analyst | Office of Undergraduate Curricula

University of North Carolina at Chapel Hill

3007 Steele Building, CB # 3504

Chapel Hill, NC 27599-3504

bhaven@email.unc.edu | (919) 843-5473

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From: Panter, A. T.

Sent: Thursday, October 17, 2013 11:54 AM

To: Eilers, Christopher J

Cc: Haven, Ben

Subject: Re: Data Needs

Dear Chris,

I can't tell you how helpful all of this information is — thank you for devoting time to all of these data requests.

I am not sure why Math is not showing up for research courses. I think Ben Haven would know if there is a special research set of numbers for math. Ben, is there an independent study number and an honors number? Ben, can you respond directly to Chris?

For Table 1 I think they want it all — applications, offers, and admissions. I know this is an enormous request — sorry.

For the Clearinghouse data, I think we will be happy with any information that the students are in educational settings after graduation, even if we are not sure in what area. If we can supplement, that would be great, but I will probably need to summarize the data within the next week. (I am guessing checking within UNC will be difficult.)

Thank you, thank you, thank you.

Abigail

A. T. Panter

panter@unc.edu

From: <Eilers>, Christopher J <chris_eilers@unc.edu>

Date: Wednesday, October 16, 2013 4:53 PM

To: "A. Panter" <panter@ad.unc.edu>

Subject: RE: Data Needs

Abigail,

A few things to report:

Attached is a file for the "Table 6" having to do with the research experience. I modified a job that I had used for Mark Schoenfisch in his HHMI project and just replaced Biomedical Engineering with Math. Mark's request had only asked for courses with catalog numbers (395, 395H, 099, 099H) so I used the same logic for your report. However, I could not find any MATH courses with those catalog numbers. Would they be under a different catalog number range? I was also wondering if you wanted any other types of courses included as 'research experience'? If so let me know and I can add them. Let me know if this table works for you or if you need it set up another way.

For the "Table 2" I got to thinking that you could probably use our website application (http://www.unc.edu/oira/public/retentionandgraduation/retention_and_graduation.php) for the university graduation rates. You've asked for the last 5 years so I would say you should pull the 2004 – 2008 cohorts in order to get the most current 4 and 5 year grad rates. The 2009 cohort only has a 4 year grad rate at this point. That application is fairly straightforward and allows you to generate a total, by race/ethnicity, by sex, or a combination. Hopefully that give you what you need.

??? For the "Table 1" you've asked for average HS GPA and SAT/ACT scores. Are those to be based on the applied, admit, or enrolled cohort?

For the "Table 5" I've received a file back from the Student Clearinghouse and am working with that as we speak. From that file I'm only finding records for about 340 of the roughly 3,200 students that we requested data for, where the student has subsequently graduated with a graduate degree and I can see the degree major. The rest of the records are not going to provide much of anything since all we can see is college name and attendance dates but nothing regarding their program of study or degree level. The only other thing that I can think of to supplement the Clearinghouse data is to look at our own UNC system to see if any of the students are currently enrolled in a graduate program. That should likely pick up some additional info.

I'll continue to work on things and let you know if I come across any more questions.

Thanks.

Chris

From: Eilers, Christopher J

Sent: Wednesday, October 16, 2013 11:35 AM

To: Panter, A. T.

Subject: Data Needs

Abigail,

I really apologize for the long delay in getting back to you. All I can say is that I've been buried with projects lately. I understand the urgency here so I am going to spend time today regrouping on the list(s) of things that you have asked for, but may need some clarification as I think about these in detail.

You've sent me a couple emails with list of required data/tables so I'm going to try to summarize what I believe is still open. If there is a priority order to any of these please let me know and I can organize my list better.

I'm also trying to find existing reports that may help, and other programmers that can help me. Lynn was also looking at the additional tables request too so she could provide me some guidance but I've not had a chance to discuss with her.

Thanks,

Chris

Original Request:

DONE – 1. Last five years of four science departments (bio, chem, physics, math) by gender, race/ethnicity — have that! Thank you!!!

2. Last five years of "research evidence" -- honors and 395 in these departments — by gender, race/ethnicity — I think you are working on this. I think this means really — have they taken at least one 395 or honors during their time here (summer too).

3. We have our first Chancellor's Science Scholars cohort of "science-interested" first year students. I am hoping to compare our selected students to other first-year "science-interested" students (not selected for the program) on many demographics (gender, race/ethnicity, SAT, AP, transfer, etc.). I could provide a list of our students.

4. Any information about what our students are doing after they graduate.

Additional Tables:

Table 1. For the university as a whole, admissions statistics for each of the last 5 years (i.e., fall 2007, 2008, 2009, 2010, and 2011):

Application numbers, overall and disaggregated by gender and ethnicity/race
Cumulative high school GPAs, overall, and disaggregated by gender and ethnicity/race
SAT/ACT scores, overall, and disaggregated by gender and ethnicity/race
Offers of admission , overall, and disaggregated by gender and ethnicity/race
Enrollment numbers, overall, and disaggregated by gender and ethnicity/race

Table 2. For the university as a whole, graduation statistics for each of the last 5 years (i.e., spring 2008, 2009, 2010, 2011, and 2012):

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Table 3. For each participating STEM department, --[BIO, CHEM, PHYSICS, MATH] pipeline statistics for declared majors for each of the last 5 years (i.e., fall 2007, 2008, 2009, 2010, 2011):

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Table 4. For each participating STEM department, pipeline statistics for baccalaureate recipients for each of the last 5 years (i.e., spring 2008, 2009, 2010, 2011, 2012):

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Cumulative college GPA, overall and disaggregated by gender and ethnicity/race
Number of years to graduation, overall and disaggregated by gender and ethnicity/race

Table 5. For each participating STEM department, post-graduation outcomes for baccalaureate recipients for each of the last 5 years (i.e., spring 2008, 2009, 2010, 2011, 2012), specifically the number of students:

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Employed in a STEM field, overall and disaggregated by gender and ethnicity/race
Not in STEM, overall and disaggregated by gender and ethnicity/race
Unknown, overall and disaggregated by gender and ethnicity/race

Table 6. For each participating STEM department, independent research experiences for each of the last five academic years (2007-08, 2008-09, 2009-10, 2010-11, 2011-12), specifically:

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Number of students who had independent research experiences both during the academic year and summer, overall and disaggregated by gender and ethnicity/race

Number of faculty who mentored undergraduate students during the academic year and/or summer